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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,625	09/15/2003	Bodo Benitsch	SGL 02/13	9768
24131	7590	11/30/2005	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			SPEER, TIMOTHY M	
			ART UNIT	PAPER NUMBER
			1775	
DATE MAILED: 11/30/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,625

Applicant(s)

BENITSCH ET AL.

Examiner

Timothy M. Speer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I (claims 1-4 and 17-20) in the reply filed on 10/21/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement filed 09/15/03 has been considered and made of record. A copy of the 1449 initialed, dated and signed by the Examiner is included herewith.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4 and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to independent claim 1, the preamble recites that the invention is directed to a "fiber-reinforced composite ceramic." The body of the claim, however, fails to recite that the composite comprises fibers. Therefore, the claims are considered to be indefinite. Moreover, claim 2 adds further uncertainty as to the scope of the claims, since it recites that the composite

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"further comprises carbon reinforcing fibers." It is not clear whether these fibers are in addition to fibers not explicitly recited in claim 1, or, in fact, are the fibers recited in the preamble.

These ambiguities render the scope of the claims unclear. Accordingly, the present claims are considered to be indefinite under 112, second paragraph. The Examiner suggests amending independent claim 1 to positively recite reinforcing fibers in the body of the claim. Any such amendment should not introduce new matter into the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Heine (USPN 6,030,913).

Heine discloses a fiber reinforced composite ceramic, wherein the fibers are carbon and the matrix is SiC (abstract, for instance). The material has an elongation at break of greater than 0.3%, e.g., 0.5% (abstract) and a porosity of less than 5% (col. 3, lines 25-29, for example).

With respect to the presently claimed density, since the materials of Heine are the same as those presently claimed and the process of making the material of Heine is similar to that disclosed in the subject specification, it is the Examiner's position that the articles of Heine will inherently possess the presently claimed density. Regarding claim 4, the SiC portion of Heine may be within the presently claimed range (see col. 2, line 66 to col. 3, line 23, for instance).

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With respect to claims 17-20, these claims merely recite intended use and are not entitled to patentable weight. Additionally, the Examiner notes that the materials of Heine, being the same as those presently claimed, could function in the uses recited in claims 17-20. Moreover, the limitations recited in the preambles of these claims are not entitled to significant patentable weight, since the portion of the claim following the preamble does not rely on the preamble for completeness. Accordingly, claims 17-20 are considered to be anticipated by Heine.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamura (USPN 6,117,534).

Yamamura teaches fiber reinforced composite ceramics, wherein the reinforcing fibers may include carbon fibers (abstract and col. 7, lines 11-23, for example). The reinforcing fibers of Yamamura have an elongation at break of greater than 0.3% and, accordingly, the composite ceramic would exhibit such an elongation at break. With respect to the matrix, Yamamura suggest that ceramic matrices may be employed, such as SiC (col. 5, lines 38-41, for instance). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a SiC matrix, since Yamamura suggests such constructions. Regarding the presently claimed density, since Yamamura teaches each of the structural

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limitations of the present claims with respect materials, it is the Examiner's position that the articles of Yamamura will possess the presently claimed density.

Regarding claims 3 and 4, porosity and the amount of matrix in the composite are result effective variables easily optimized by one having ordinary skill in the art. Where the prior art teaches the general conditions of a claim, it is not inventive to discover optimum or workable ranges through routine experimentation. Accordingly, these claims are considered to be prima facie obvious over Yamamura.

With respect to claims 17-20, these claims merely recite intended use and are not entitled to patentable weight. Additionally, the Examiner notes that the materials of Yamamura could function in the uses recited in claims 17-20. Moreover, the limitations recited in the preambles of these claims are not entitled to significant patentable weight, since the portion of the claim following the preamble does not rely on the preamble for completeness. Accordingly, claims 17-20 are considered to be prima facie obvious in view of Yamamura.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Speer whose telephone number is 571-272-8385. The examiner can normally be reached on M-Th, M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah D. Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy M. Speer



STEPHEN STEIN
PRIMARY EXAMINER